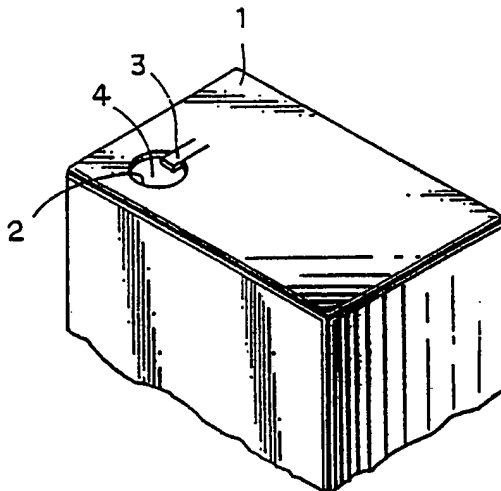




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(21) International Application Number: PCT/KR91/00004 (22) International Filing Date: 26 February 1991 (26.02.91) (30) Priority data: 1990-2159 U 27 February 1990 (27.02.90) KR (71)(72) Applicant and Inventor: LEE, Jung, Min [KR/KR]; 172-33, Myounmok 5-dong, Jungrang-ku, Seoul 131-205 (KR). (81) Designated States: AT (European patent), AU, BE (European patent), BR, CA, CH (European patent), DE (European patent), DK (European patent), ES (European patent), FR (European patent), GB (European patent), GR (European patent), IT (European patent), JP, LU (European patent), NL (European patent), SE (European patent), SU, US.		Published <i>With international search report.</i>

(54) Title: A PACK HAVING TONGUE PIECE FOR FORMING EXTERIOR AIR FLOWING IN HOLE

**(57) Abstract**

This invention relates to a pack of new structure for liquid beverage packing in which exterior air flowing-in hole for preventing a phenomenon becoming to vacuum within interior of container can be naturally formed at a place penetrated by a straw during process that a straw is inserted and penetrating it. The invention is constructed in such a manner that bottom of hole (2) to be perforated by a straw is sealed with aluminium foil (4), and at least one or more exterior air flowing-in hole forming tongue pieces (3) formed which extend toward interior of said hole (2) and which is discriminated by making cutting trace on a pack (1) around the hole (2). According to the invention, phenomenon becoming to vacuum within interior of container such as a pack during sucking the contents of it can be prevented, so that liquid beverage is conveniently sucked and drunk.

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SPECIFICATION

TITLE

A pack having tongue piece for forming exterior air
5 flowing in hole

TECHNICAL FIELD

The present invention relates to an improvement of
a pack for packing liquid beverage, and more part-
icularly to a pack of new structure in which exterior
10 air flowing-in hole for preventing a phenomenon of
becoming to vacuum within interior of container can be
naturally formed during a process that a straw is inserted
by penetrating at a place perforated by said straw.

BACKGROUND ART

15 Among the packs for packaging liquid beverage, there
is an article that bottom of hole to be penetrated and
inserted by a straw is sealed by aluminium foil paper
which can be easily torn out by a straw. A greatest
problem in this kind pack is that, in a process for

inserting a straw and sucking the liquid beverage contained within interior thereof, vacuum degree becomes increased in proportion to the quantity that content is sucked out, and according to this, not only the pack is dented in, but also in some case, it is also resulted to a serious case as much as a degree that any more sucking in is difficult. In order to prevent such phenomenon of becoming to vacuum within interior of the pack, the hole of a place perforated by the straw should be made to larger than outside diameter of the straw, so that exterior air is naturally flowed into the pack as much as the quantity that the quantity of contents is decreased.

Heretofore, such straw hole widening has been carried out by a method such as that the straw is perpendicularly inserted and then turned around by bending to sideward, however this was inconvenient and troublesome, and there has been disadvantage that a time was required until to suck and drink the contents thereof.

DISCLOSURE OF INVENTION

The present invention aims to provide a pack in

which above-described disadvantage and inconvenience are reduced, and it is possible to easily and rapidly suck and drink the contents as soon as penetrating a hole.

5 BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a schematic fragmentary perspective view of a pack applied with a preferred embodiment of the present invention.

10 FIG. 2 is a schematic plane view of another embodiment of the present invention,

FIG. 3 is a fragmentary cross sectional view for showing a state that a hole is perforated upon inserting a straw by pushing down a tongue piece, and


15 FIG. 4 is a fragmentary cross sectional view for showing a state that FIG. 3 is viewed in a direction of perpendicular against FIG. 3.

BEST MODE FOR CARRYING OUT THE INVENTION

Hereinafter, best mode for carrying out the invention will be described in detail with reference to the

accompanying drawings as follows.

Referring FIGs. 1 to 4, in order to accomplish above-described object, the present invention is constructed in such a manner that, in a hole 2 of pack 1 to be penetrated and inserted by a straw, at least one or more tongue pieces 3 extending to a region of said hole 2 by inner side end are formed from the pack 1 around hole 2.

Said tongue piece 2 is discriminated from the pack 1 by cutting trace on the pack 1. However, this tongue piece 3 is separately formed relative to the aluminium foil paper 4. And therefore, in case when the straw 5 is inserted into the hole 2, said tongue piece 3 is pressed by the tip end of the straw 5 whereby it is bent and entered toward interior of the pack, and at this moment, a hole of  - shape in plane view is perforated to the aluminium foil paper 4 by the straw 5 and tongue piece 3.

In this hole, the straw 5 is inserted into the round hole trace, but the rectangularly shaped hole

portion 6 communicated with said round hole trace is vacant, and therefore interior and exterior are communicated together. Consequently, the flowing-in of exterior air is obtained through the rectangularly shaped hole portion 6 formed by the tongue piece 3, and accordingly the phenomenon of becoming to vacuum in the remaining space after the contents is taken out becomes not produced.

10 As described above, according to the present invention, since a hole capable of flowing in the exterior air is formed simultaneously when a hole is perforated to the aluminium foil paper by a straw, the making of exterior air flowing-in hole is very easy, and the tongue
15 piece for making it can be formed by simple method.

It will be appreciated that the present invention is not restricted to the particular embodiment that has been described hereinbefore, and that variations and modifications may be made therein without departing from
20 the spirit and scope of the invention as defined in the appended claims and equivalents thereof.

CLAIM

1. In an article which sealed bottom of hole 2
to be inserted and penetrated by a straw with aluminium
5 foil paper 4,
a pack which is characterized in that at least
one or more exterior air flowing-in hole forming tongue
piece 3 are formed which extend foward interior of said
round hole 2 and which is discriminated by making cutting
10 trace on pack 1 around the hole 2.

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FIG.1

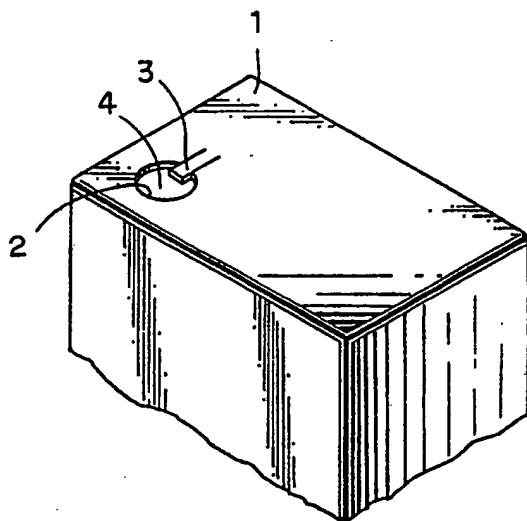


FIG.2

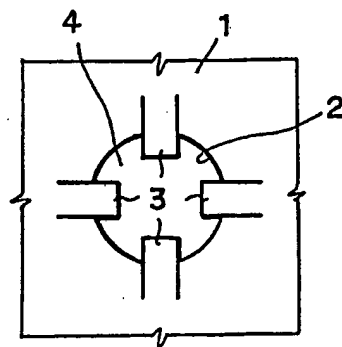


FIG.3

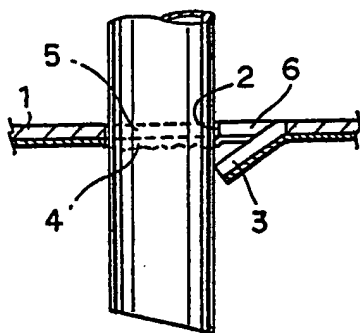
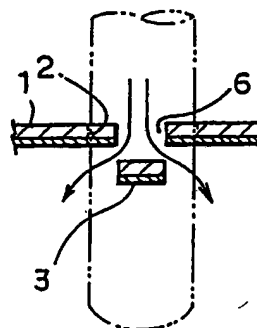
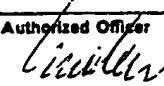


FIG.4



INTERNATIONAL SEARCH REPORT

International Application No PCT/KR 91/00004

I. CLASSIFICATION OF SUBJECT MATTER (if several classification symbols apply, indicate all) ⁶ According to International Patent Classification (IPC) or to both National Classification and IPC Int. Cl. ⁵ : B 65 D 5/54; B 65 D 77/28; A 47 G 21/18		
II. FIELDS SEARCHED <div style="text-align: center; border-top: 1px solid black; border-bottom: 1px solid black;">Minimum Documentation Searched ⁷</div> <div style="display: flex; justify-content: space-between;"> <div style="width: 30%;">Classification System </div> <div style="width: 70%;">Classification Symbols</div> </div> Int. Cl. ⁵ : A 47 G 21/18; B 65 D 5/42, 5/54, 5/70, 5/72, 5/74; B 65 D 17/00, 17/28, 17/30, 17/42, 25/38, 25/52; B 65 D 65/26, 65/28, 65/30, 77/28, 77/30, 85/72; B 65 B 19/34		
Documentation Searched other than Minimum Documentation to the Extent that such Documents are Included in the Fields Searched ⁸		
III. DOCUMENTS CONSIDERED TO BE RELEVANT ⁹		
Category ⁹	Citation of Document, ¹¹ with indication, where appropriate, of the relevant passages ¹²	Relevant to Claim No. ¹³
Y	DE, A, 2 050 221 (FIRST DYNAMICS, Inc.) 23 September 1971 (23.09.71), see fig. 7.	(1)
Y	DE, A1, 2 751 351 (TETRA PAK INTERNATIONAL AB) 01 June 1978 (01.06.78), see fig. 2a,2b.	(1)
A	DE, B, 2 359 325 (FIRST DYNAMICS, Inc.) 23 January 1975 (23.01.75), see fig. 2,3.	(1)
A	US, A, 2 226 049 (CARLEY) 24 December 1940 (24.12.40), see fig. 6,7.	(1)
<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>¹⁰ Special categories of cited documents:</p> <p>"A" document defining the general state of the art which is not considered to be of particular relevance</p> <p>"E" earlier document but published on or after the international filing date</p> <p>"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)</p> <p>"O" document referring to an oral disclosure, use, exhibition or other means</p> <p>"P" document published prior to the international filing date but later than the priority date claimed</p> </div> <div style="width: 45%;"> <p>"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention</p> <p>"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step</p> <p>"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.</p> <p>"&" document member of the same patent family</p> </div> </div>		
IV. CERTIFICATION		
Date of the Actual Completion of the International Search		Date of Mailing of this International Search Report
29 April 1991 (29.04.91)		24 May 1991 (24.05.91)
International Searching Authority		Signature of Authorized Officer
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Anhang zum internationalen Recherchenbericht
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In diesem Anhang sind die Mitglieder der Patentfamilien der im obengenannten internationalen Recherchenbericht angeführten Patentedokumente angegeben. Diese Angaben dienen nur zur Unterrichtung und erfolgen ohne Gewähr.

Annex to the International Search Report on International Patent Application
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Annex rapport de recherche internationale relatif à la demande de brevet international n°.

La présente annexe indique les membres de la famille de brevets relatifs aux documents de brevets cités dans le rapport de recherche internationale visé ci-dessus. Les renseignements fournis sont donnés à titre indicatif et n'engagent pas la responsabilité de l'Office autrichien des brevets.

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None